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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,159

12/02/2003

Simon Robert Walmsley

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EXAMINER

HAMMOND, CRYSTAL L

ART UNIT

PAPER NUMBER

2819

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/727,159	<b>Applicant(s)</b> WALMSLEY ET AL.	
	<b>Examiner</b> CRYSTAL L. HAMMOND	<b>Art Unit</b> 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/02/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-17** are rejected under 35 U.S.C. 102(b) as being anticipated by Trimberger (US 5,581,198).

Figure 3 of Trimberger discloses an integrated circuit comprising a processor and memory storing:

(1) regarding **Claim 1**:

secret information accessible via a first address (the secret information is selected from array #301 by address sequencer and decoder #303 in Fig 3), the secret information comprising a string of bit values (bit values from array #301 in Fig 3);

an inverse-string accessible via a second address, the inverse-string comprising a string of bit values, wherein each of the bit values in the inverse-string is the logical inverse of a bit value at a corresponding bit position in the secret information (#308 inverts the selected address and stores it in data register #309 in Fig 3), the integrated circuit being programmed with code configured to:

(i) receive a request for the secret information (#303 in Fig 3); and

(ii) test whether the bit-values of the inverse string are the inverse of the bit-values at respective corresponding bit positions of the secret information (error detection and correction circuit #307 and Data valid circuitry #305 in Fig 3).

(2) regarding **Claim 2**:

configured and programmed to perform a defensive action in the event the test fails (Col 4 lines 39-46-transfer of the data held in the data register is permitted if the data is not valid).

(3) regarding **Claim 3**:

wherein the defensive action includes deleting or destroying some or all of the contents of the memory in the event the test fails (Col 4 lines 39-46-a refresh cycle is allowed and the memory contents are overwritten).

(4) regarding **Claim 4**:

wherein the defensive action includes deleting or destroying the secret information and/or the inverse string (Col 4 lines 39-46-when the transfer of the inverse string is not permitted, it is overwritten with a new inverse string).

(5) regarding **Claim 5**:

wherein the defensive action includes preventing the processor from executing software (See Col 1 lines 45-51 and Col 2 lines 7-20-the PLD is configured and controlled by configurable logic blocks which are controlled by control bits provided by memory, therefore if the memory contents are empty, the processor will not execute any software).

(6) regarding **Claim 6**:

wherein the defensive action includes resetting some or all of logic on the integrated circuit (Col 4 lines 39-46).

(7) regarding **Claim 7**:

wherein the first and second addresses are at the same address in the memory (See Fig 3 #303 and 301 can Col 4 lines 3-8, the address line #302 pulls the first address and performs the inverse operation on that same element).

(8) regarding **Claim 8**:

Wherein the string and inverse string are stored at different sub-addresses within the same address (Col 4 lines 22-31-after second address is deemed valid, it is stored back in DRAM #301).

(9) regarding **Claim 9**:

As to **Claim 9**, this claim differs from **Claim 1** only in that **Claim 1** is an apparatus claim whereas **Claim 9** is a method. Thus method **Claim 9** is analyzed as previously discussed with respect to **Claim 1** above.

(10) regarding **Claim 10**:

As to **Claim 10**, this claim differs from **Claim 2** only in that **Claim 2** is an apparatus claim whereas **Claim 10** is a method. Thus method **Claim 10** is analyzed as previously discussed with respect to **Claim 2** above.

(11) regarding **Claim 11**:

As to **Claim 11**, this claim differs from **Claim 3** only in that **Claim 3** is an apparatus claim whereas **Claim 11** is a method. Thus method **Claim 11** is analyzed as previously discussed with respect to **Claim 3** above.

(12) regarding **Claim 12**:

As to **Claim 12**, this claim differs from **Claim 4** only in that **Claim 4** is an apparatus claim whereas **Claim 12** is a method. Thus method **Claim 12** is analyzed as previously discussed with respect to **Claim 4** above.

(13) regarding **Claim 13**:

As to **Claim 13**, this claim differs from **Claim 5** only in that **Claim 5** is an apparatus claim whereas **Claim 13** is a method. Thus method **Claim 13** is analyzed as previously discussed with respect to **Claim 5** above.

(14) regarding **Claim 14**:

As to **Claim 14**, this claim differs from **Claim 6** only in that **Claim 6** is an apparatus claim whereas **Claim 14** is a method. Thus method **Claim 14** is analyzed as previously discussed with respect to **Claim 6** above.

(15) regarding **Claim 15**:

As to **Claim 15**, this claim differs from **Claim 1** only in that **Claim 1** is an apparatus claim whereas **Claim 15** is a method of manufacturing. Thus method of manufacturing **Claim 15** is analyzed as previously discussed with respect to **Claim 1** above.

(16) regarding **Claim 16**:

As to **Claim 16**, this claim differs from **Claim 8** only in that **Claim 8** is an apparatus claim whereas **Claim 16** is a method of manufacturing. Thus method of manufacturing **Claim 16** is analyzed as previously discussed with respect to **Claim 8** above.

(17) regarding **Claim 17**:

As to **Claim 17**, this claim differs from **Claim 1** only in that **Claim 1** is an apparatus claim whereas **Claim 17** is a method of manufacturing. Thus method of manufacturing **Claim 17** is analyzed as previously discussed with respect to **Claim 1** above.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sibert (US 7,124,170) discloses a secure processing unit systems and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRYSTAL L. HAMMOND whose telephone number is (571)270-1682. The examiner can normally be reached on Monday Thru Friday 7:30 AM-5:00 PM Alt Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2819

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Clh  
04/14/2008

/Rexford N BARNIE/  
Supervisory Patent Examiner, Art Unit 2819